



DATE: February 23, 1988 Date of Inspection: February 16, 1988
TO: Sy Levine Last Insp. Date: October 22 & 27, 1987
FROM: Cezary Krzymowski *CK* Region/District: 105
Facility: LTV Steel Corp. I.D. #: 031 600 AMC
Address: 116th & Burley Ave., Chicago 60617
Contact/Title: Mike Thomas/Envir.Coord. Phone: 312/933-4522

EPA Region 5 Records Ctr.



307755

1.0 Product-Process Description

The facility is an integrated steel mill which produces steel in two Q-BOP furnaces and three electric arc furnaces. Iron for the Q-BOP's is produced in one blast furnace and coke for the blast furnace is produced at the coke and associated by-products plant. They operate several rolling mills which produce bars and a wire mill. All sources except for the coke and by-products plant, the 11 inch mill and the boiler plant are not in operation and on indefinite shutdown status due to economic conditions.

2.0 Purpose of Inspection

3/5/87

10/22 & 27/87

The coke plant was inspected according to the workplan.

2/16/88

PM10 Project and Workplan.

2.1 Compliance History

The doors were in violation on the last inspection.

2.2 Observations-Discussion Related to Inspection

March 5, 1987 -

Mr. Mike Thomas escorted the author and Ed Osowski on the inspection. Doors, lids, standpipes, charging and pushing were inspected. The doors with visible emissions on the coke side were no's 4,7,8,10,14,33,41,57 and on the push side were no's 18,17,16,10 and 8. A total of 13 doors leaked in violation of their 5% total or 6 doors permit condition number 5. Two lids were observed leaking which was in compliance with their 2% total or 5 allowable per permit condition number 4. Zero standpipes were observed leaking which was in compliance with their 5% total or 3 allowable per permit condition number 3. Charging was observed and timed for duration of visible emissions over five consecutive charges. The total number of seconds of visible emissions over five consecutive charges was 2.63 seconds with an allowable of 55 seconds per condition

2.2 Observations-Discussion Related to Inspection (continued)

number of their operating permit. The average opacities of emissions from the scrubber controlling charging for each of the five charges was 18.9%, 12.7%, 14.6%, 10.9% and 7.8% in compliance with the 20% average per Section 212.442(b)(2). Pushing average opacities for 4 consecutive pushes were 10.8%, 13.3%, 14.2% and 18.3% in compliance with the 20% average per Section 212.443(c)(1)(A). The baghouse push control opacities were 0% for the four pushes in compliance with the 20% average per Section 212.443(c)(2)(B). The inspection checklists are attached. The combustion stack was clean. The light oil liquid service component log book was found to be in order. Quench tower make-up water samples were taken and sent out for analysis. They were pushing 78 ovens per day.

Mr. Thomas stated that they are in the process of signing a consent decree with the USEPA regarding a door replacement program which will utilize the new "Saturn" doors. A copy of the compliance program is attached.

October 22, 1987 & October 27, 1987 -

Mr. Mike Thomas escorted the author and Ed Osowski on the inspection. Doors, lids, standpipes, charging and pushing were inspected. The doors with visible emissions on the coke side were no. 33, and on the push side were no's 47, 45, 41 and 43. A total of 5 doors leaked in compliance with their 5% total or 6 doors allowable per permit condition number 5. Zero lids were observed leaking which was in compliance with their 2% total or 5 allowable per permit condition number 4. Zero standpipes were observed leaking which was in compliance with their 5% total or 3 allowable per permit condition number 3. Charging was observed and timed for duration of visible emissions over five consecutive charges. The total number of seconds of visible emissions over five consecutive charges was 9.2 seconds with an allowable of 55 seconds per condition number 1 of their operating permit. The average opacities of emissions from the scrubber controlling charging for each of the five charges was 6.4%, 6.0%, 14.3%, 10.0% and 8.2% in compliance with the 20% average per Section 212.443(b)(2). Pushing average opacities for 4 consecutive pushes were 14.2%, 19.2%, 15.8% and 19.2% in compliance with the 20% average per Section 212.443(c)(1)(A). The baghouse push control opacities were 0% for the four pushes in compliance with the 20% average per Section 212.443(c)(2)(B). The inspection checklists are attached. The combustion stack was clean. The light oil liquid service component log book was found to be in order. Quench tower make-up water samples were taken and sent out for analysis. They were pushing 85 ovens per day.

Mr. Thomas stated that satisfactory progress on the consent decree with the USEPA regarding a door replacement program utilizing the new "Saturn" doors is being made and they have 25 more doors on the push side to install. A jamb reconstruction program is next. Charging emissions were read on 10/27/87 because the charge scrubber fan coupling had sheared just before the inspection on 10/22/87 and only one fan was in operation resulting in scrubber stack opacities of over 60%. The coupling was replaced and the fan put back into service later that day. A malfunction notice letter is being prepared.

February 16, 1988 -

Mr. Mike Thomas escorted the author and Ed Osowski on the inspection. Doors, lids, standpipes, charging and pushing were inspected. The doors with visible emissions on the coke side were no.'s 1, 2, 11, 15, 19, 20, 21, 38, 42, 53, 56 and 59, and on the push side were no's 56, 54, and 27. A total of 15 doors leaked in violation with their 5% total or 6 doors allowable per permit condition number 5. All leaks were from door jams. Zero lids were observed leaking which was in compliance with their 2% total or 5 allowable per permit condition number 4. Zero standpipes were observed leaking which was in compliance with their 5% total or 3 allowable per permit condition number 3. Charging was not observed and timed for duration of visible emissions over five consecutive charges due to a malfunction of the scrubber control fan motor bearing. See attached malfunction notification letter dated 2/17/88. Pushing average opacities for 4 consecutive pushes were 9.2%, 49.2%, 20.8% and 20.0% in violation with the 20% average per Section 212.443(c)(1)(A). The baghouse push control opacities were 0% for the four pushes in compliance with the 20% average per Section 212.443(c)(2)(B). The inspection checklists are attached. The combustion stack was clean. The light oil liquid service component log book was found to be in order. Four primary light oil tank "C" valves were found leaking on 11/9/87 and are scheduled for replacement as soon as new valves can be manufactured. The valves now leak sporadically since adjustments were made to the packing. Quench tower make-up water samples were taken and sent out for analysis. They were pushing 85 ovens per day. The water samples indicated compliance (see attached).

Mr. Thomas stated that satisfactory progress on the consent decree with the USEPA regarding a door replacement program utilizing the new "Saturn" doors was made and they have completed this program. A jamb reconstruction program is next.

2.3 Summary of Meetings
N/A

2.4 Telephone Call Reports
N/A

3.0 Emission Source

Identification [Coke and By-Products Plant/Permit #81090054]

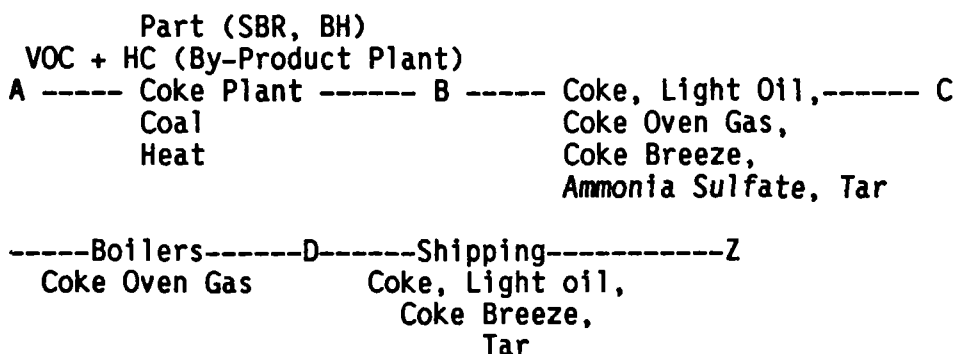
3.01 Applicable Regulation

Section 212.443: Coke plant door, lid, standpipe, charging and pushing standards.

Section 215.510: Coke by-product plant VOC source control standards.

Sections 215.512, 215.513, 215.514, 215.515: Coke by-product plant light oil in liquid service component leak standards.

3.02 Process Flow Diagram



3.1 Emission Source

Identification [See Below]

The following smaller sources are presently in operation with emissions as stated in the TAS:

Permit No.	Granted	Source Name	Expires	8 hr turns/week
73031527	4/11/83	3 main boilers, 100,000 lb/hr ea	4/04/88	
73031528	4/18/83	2 bar coil annealing furnaces	4/04/88	12-15 turns/wk
73031684	4/11/83	11 inch mill reheat furnace	4/04/88	12-15 turns/wk
73031677	4/11/83	11 inch mill Wheelabrator grit blaster	4/04/88	12-15 turns/wk
73031678	4/11/83	1 inch mill #2 grinder & dust collector	4/04/88	12-15 turns/wk
73031679	4/11/83	11 inch mill billet conditioning facility	4/04/88	12-15 turns/wk
73060122	5/11/87	B & W 250,000 lb/hr steam boiler	5/03/90	
75070076	4/15/85	11 inch mill FIS bar #2 grit blaster	4/15/90	12-15 turns/wk
75120004	4/30/87	Storage tanks	4/27/92	12-15 turns/wk
75120060	11/16/84	Storage tanks	11/16/89	12-15 turns/wk
75120063	10/22/87	Oil Storage Tanks	10/15/92	12-15 turns/wk
80070006	5/04/87	Wire mill H ₂ SO ₄ north line	4/28/92	12-15 turns/wk
80070007	5/04/87	Wire mill H ₂ SO ₄ south line	4/28/92	12-15 turns/wk
73070215	4/11/83	B & W 125000 lb/hr boiler	4/04/88	

3.11 Applicable Regulations

3.12 Process Flow Diagram

**3.2 Emission Source
Identification [_____]**

3.21 Applicable Regulations

3.22 Process Flow Diagram

**3.3 Emission Source
Identification [_____]**

3.31 Applicable Regulations

3.32 Process Flow Diagram

**3.4 Emission Source
Identification [_____]**

3.41 Applicable Regulations

3.42 Process Flow Diagram

4.0 Permit Status

March 5, 1987 -

Coke Plant permit #81090054 expired on 2/28/87. CIL sent 3/12/87.

October 22, 1987 & October 27, 1987 -

February 16, 1988 -

Coke plant reapplication on 1/20/87 was denied due to a pending appeal with PCB 86-43. LTV appealed this denial and the PCB consolidated both appeals. There is a stay now in effect due to the appeal.

(See 3.1)

4.1 Standard Conditions

Complied with standard conditions.

4.2 Special Conditions

In violation of Condition #6 Pushing limitations Section 212.443(c).

4.3 New Source Review

N/A

5.0 Fugitive Dust Program

In compliance. Program accepted 1/1/83.

6.0 Opacity Observations

Violation of Section 212.443(c) - Coke Pushing. See attached forms.

6.1 Visible Emission Observations

Violation of emissions from coke oven door jams but facility is on a USEPA Consent Decree which is being followed in compliance.

7.0 Emission Calculations

Coke and by-products plant

81090054-001	Coal handling	Actual	1.38 lb/hr
		Allowable	32.0 lb/hr
81090054-002	Coal handling	Actual	3.50 lb/hr
		Allowable	25.5 lb/hr
81090054-003	Charging	Actual	1.84 lb/hr
		Allowable	3.00 lb/hr
81090054-004	Pushing	Actual	0.51 lb/hr
		Allowable	5.8 lb/hr
81090054-005	Quenching	Actual	115.2 lb/hr
		Allowable	115.2 lb/hr
81090054-006	Doors	Actual	2.88 lb/hr
		Allowable	2.9 lb/hr
81090054-007	Combustion Stack	Actual	6.8 lb/hr
		Allowable	28.9 lb/hr

7.1 RACT I Calculations

N/A

7.2 RACT II Calculations

N/A

7.3 RACT III Calculations

N/A

8.0 Equipment Standards

N/A

9.0 NSPS

Q-BOP is NSPS but it is indefinitely shut down and was in compliance before shutdown.

10.0 NESHAP

N/A

11.0 Stack Tests

N/A

12.0 Section 9(a) Factors

No complaints from area residents have been received since the last inspection.

13.0 Multi-Media Factors
N/A

13.1 Chemical Safety
N/A

14.0 Attainment/Non Attainment/
Geographical Description

Non attainment for ozone and particulates and located in a heavy industrial area with residences across the street to the north, east and west.

15.0 Findings/Conclusions/
Recommendations

March 5, 1987 -

The facility is in violation of special coke plant permit condition no. 5-(door emissions) and for failure to renew their coke plant operating permit. A consent decree is being negotiated with USEPA and LTV regarding the door program. A CIL was sent and further recommendation will be made when a response is received.

October 22, 1987 & October 27, 1987 -

The facility is in compliance with the Regulations and permit conditions. A stay order is in effect with the PCB regarding the denial of the permit.

February 16, 1988 -

The facility is in violation of the coke pushing regulations, Section 212.443(c). A CIL will be sent for this violation.

CK:sa:0748L

cc: M. Zamco
File

Attachments



312/345-9780

CERTIFIED MAIL
Return Receipt
#P 298 849 159

February 25, 1988

Mr. Michael J. Thomas,
Environmental Coordinator
LTV Steel Co.
11600 S. Burley Ave.
Chicago, IL 60617

RE: I.D. #031 600 AMC Coke Plant

Dear Mr. Thomas:

This inquiry concerns apparent noncompliance with the requirements of the State of Illinois Environmental Protection Act and 35 Ill. Adm. Code - Subtitle B, Chapter 1 - Air Pollution Control Regulations as observed on February 16, 1988. The apparent violation is as follows:

Section 212.443(C):	Emissions of fugitive particulate matter from pushing coke ovens #29 and #31 in violation of the 20% opacity average.
---------------------	---

You are required to submit in writing, within fifteen (15) days of receipt of this letter, the reasons for the apparent violation outlined above, as well as a description of the steps which have been initiated to prevent any further recurrence of the above-cited violation. This information should be sent to:

Cezary Krzymowski
Illinois Environmental Protection Agency
1701 South First Avenue - Suite 600
Maywood, Illinois 60153

I.D. #031 600 AMC
February 25, 1988
Page 2

Further, take notice that noncompliance with the above requirement(s) may be the subject of enforcement action pursuant to the Illinois Environmental Protection Act, Ill. Rev. Stat., Ch. 111 1/2, Sec 1001 et seq.

Should you need additional information or have any questions regarding the above, call Cezary Krzymowski at 312/345-9780.

Sincerely,

Sy Levine, P.E.
Regional Manager
Division of Air Pollution Control

SL/CK/sa/0130S

cc: Miles Zamco
Enforcement Services Section
Permit Section
Region 1 File-2



Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

(For Internal Use Only)

Date of Inspection: 2/16/88

I.D.#: 031600 AMC R/D: 105

Facility: LTV Steel Co.

Address: 11600 S. Burley Ave, Chicago 60617

Contact/Title: Mike Thomas Envir. Coord.

Phone: 312-933-4522

PRE-INVESTIGATION STATUS:

☒ Workplan
☐ Quarterly Report
☐ MIR
☒ Other PM10

☒ (A) Task Force
☐ (B) On Program
☐ (C) Violator
☐ (D) NESHAPS
☐ (F) NSPS
☐ (I) A-2
☐ (J) Special Request
☐ (M) Asbestos D/R

☐ (R) Random/Non-Traditional
☐ (S) HC Chicago/St.Louis
☐ (T) TSP Chicago/St.Louis
☐ (U) A-1
☐ (V) B Facility
☐ (W) Multi-Media Problems
☐ (X) Service Station
☐ (Z) Petrochemical Plant

INSPECTION FINDINGS:

☒ Emission Violation
☐ Permit Violation
☐ Permit Condition Violation
☐ NO VIOLATION
☐ Flag File

☒ CIL
☐ To MIR
☐ To Quarterly Report
☐ Multi-Media Issue Possible
☐ Land ☐ Noise ☐ Water

☒ TAS Check
☒ TAS Coded
☒ Form 177
☒ Compliance Flow
☐ Malfunction
☐ Copy to STATE OF ILLINOIS
☐ Frequency

IL532-1244
 APC 421 6/87

2.0 Purpose of Inspection

3/5/87

10/22 & 27/87

The coke plant was inspected according to the workplan.

2/16/88

PM10 Project and Workplan.

2.1 Compliance History

The doors were in violation on the last inspection.

2.2 Observations-Discussion Related to Inspection

March 5, 1987 -

Mr. Mike Thomas escorted the author and Ed Osowski on the inspection. Doors, lids, standpipes, charging and pushing were inspected. The doors with visible emissions on the coke side were no's 4,7,8,10,14,33,41,57 and on the push side were no's 18,17,16,10 and 8. A total of 13 doors leaked in violation of their 5% total or 6 doors permit condition number 5. Two lids were observed leaking which was in compliance with their 2% total or 5 allowable per permit condition number 4. Zero standpipes were observed leaking which was in compliance with their 5% total or 3 allowable per permit condition number 3. Charging was observed and timed for duration of visible emissions over five consecutive charges. The total number of seconds of visible emissions over five consecutive charges was 2.63 seconds with an allowable of 55 seconds per condition